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10/022823

BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Application Number: 10/022,823
Filing Date: December 18, 2001
Appellant(s): SUN ET AL.

Timothy A. Cassidy
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed March 3, 2005.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

No amendment after final has been filed.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

5,529,585	Schrell et al	6-1996
4,242,408	Evani et al	12-1980
JP02127593	Sanyo Kokusaku Pulp Co	5-1990
WO2000011046	Geer et al	3-2000

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claims 16-18 and 32 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-45 of copending Application NO. 10/1023,489. Although the conflicting clams are not identical, they are not patentably distinct from each other because each teaches treating cellulosic fibrous materials with polyvinyl amines and polymeric anionic reactive compounds.

This is a provisional obviousness-type double patenting rejection because the conflicting clams have not in fact been patented.

Claim 16-8, 20-23, 26-28, 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schrell et al, U.S. Patent No. 5,529,585 in view of Evani, U.S. Patent No. 4,242,408. Schrell discloses cellulosic fibers which are treated with a polyvinylamine. See col. 1, line 52- col. 2, line 50. This treatment enables the cellulosic fibers to be dyed with acid dyes such as those claimed. See col. 4, lines 54-61. The cellulosic fibers may be formed into yarns, woven, nonwoven and knitted fabrics. See col. 4, lines 13-15. Schrell et al differs from the claimed invention because Schrell does not each employing the claimed complexing agent. Evani teaches treating cellulosic fibers with polymeric anionic reactive compounds such as maleic acid in order to enhance the strength and disposability of the fibers. It would have been obvious to one of ordinary skill in eth art at the time the invention was made to have applied the polymeric anionic reactive compounds of Evani to the cellulosic material of Schrell. One of ordinary skill in the art would have been motivated to apply the compounds of Evani

to the cellulosic material of Schrell by the expectation that this would enhance the strength and disposability of the fibers.

Claims 24-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schrell in view of Evani as applied to claims 16-18, 20-23, 26-28 above, and further in view of JP 02-127, 593. Neither Schrell nor Evani teach incorporating other fibers such as nitrogen containing fibers into the cellulosic fibrous material. JP '593 teaches incorporating polyamide fibers into cellulosic fibrous material in order to enhance the strength of the cellulosic material. It would have been obvious to have incorporated polyamide fibers into the cellulosic fibrous material of Schrell and Evani. One of ordinary skill in the art would have been motivated to incorporate the polyamide fibers by the expectation that these fibers would further enhance the strength of the cellulosic fibrous materials.

Claims 16-17, 19-20, 22-23, 26-28, 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schrell in view of WO 00/11046 to Geer et al. Schrell teaches a cellulosic material as set forth above. Schrell does not teach the claimed complexing agent. Geer teaches applying aldehyde functional polymers to cellulosic materials in order to enhance the strength of the material. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have applied the aldehyde functional polymers to the cellulosic material of Schrell. One of ordinary skill in the art would have been motivated to apply the aldehyde functional polymers to the cellulosic material of Schrell by the expectation that this would enhance the strength of the Schrell material.

Claims 24-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schrell in view of Geer et al as applied to claims 16-17, 19-20, 22-23, 26-2, 32 above, and further in view of JP 02-127,592. Neither Schrell nor Geer teach incorporating other fibers such as nitrogen containing fibers into the cellulosic fibrous material. JP '593 teaches incorporating polyamide fibers into cellulosic fibrous materials in order to enhance the strength of the cellulosic material. It would have been obvious to have incorporated polyamide fibers into the cellulosic fibrous materials of Schrell and Geer. One of ordinary skill in the art would have been motivated to incorporate the polyamide fibers by the expectation that these fibers would further enhance the strength of the cellulosic fibrous materials.

(10) Response to Argument

Appellant argues that Schrell does not teach bonding the polymeric amine compound to the fibers as required by independent claim 16. However, claim 16 recites said "cellulosic material being treated with a polyvinylamine and a complexing agent" . Schrell teaches treating the cellulosic material with a polyvinylamine since Schrell teaches adding the polyvinylamine to the material which makes up the cellulosic material. Appellant argues that Schrell does not teach that the complexing agent bonds the polyvinylamine to the cellulosic material. It is true that Schrell does not teach employing a complexing agent at all. However, both Evani and Geer teach applying a complexing agent to cellulosic textile materials. Both Evani and Geer teach applying the complexing agent to the cellulosic materials to enhance the strength of the materials. Since a motivation is found in the references themselves to apply the

complexing agent to the cellulosic material, it must be presumed that the complexing agent would act the same way in both the instant invention and in the inventions set forth in Evani and Geer.

Appellant argues that there is no motivation found in Evani to add the complexing agent so that the complexing agent bonds the polyvinylamine to the cellulosic material in order to improve the acid receptivity of acid dyes of textile material. However, it is not required that the motivation to combine found in the reference be the same as Appellant's motivation. Evani clearly provides the motivation of adding the complexing agent in order to enhance the strength and disposability of the fibers. Therefore, although the motivation is different from the motivation used by Appellant, the motivation is clearly found in the references themselves.

Appellant argues that the proper test for determining obviousness is not whether the differences between the prior art and the claims are obvious, but instead whether the claimed invention was a whole would have been obvious. However, the only things which can be compared in determining obviousness are the claims and the prior art. By considering all the claims, the claimed invention as a whole is considered. Here, the claims recite treating the cellulosic material with a polyvinylamine, which is taught by Schrell, and with a complexing agent which is not taught by Schrell. Both Evani and Geer teach treating cellulosic materials with complexing agents in order to make the treated cellulosic materials stronger. Therefore, based on the references themselves, it would have been obvious to have treated the cellulosic material of Schrell with a

complexing agent, motivated by the expectation that this would make the cellulosic material of Schrell stronger.

With regard to the combination of Geer and Schrell, Appellant again argues that Geer does not have relevance to the problem of improving acid dye receptivity and that not motivation to make the claimed combination exists since neither Geer nor Schrell teach applying the complexing agent for the purpose of enhance the acid dye receptivity. However, as set forth above, the Geer reference clearly provides a motivation for applying the complexing agent because Geer teaches that the complexing agent will make the cellulosic textile stronger. This teaching is found directly in the reference itself. Therefore, Geer clearly provides a motivation to make the combination. The motivation does not have to be the same as the motivation employed in the instant invention for the combination to be valid.

Appellant argues that none of the references teach that the polyvinylamine is bonded to the cellulosic material by the complexing agent. However, Schrell clearly teaches treating the cellulosic material with the polyvinylamine. If a complexing agent was then added to the cellulosic material as is clearly taught in the secondary references, it is reasonable to presume that the complexing agent would function in the same way as it does in the instant claims, since all the claim limitations would be met. The claims do not recite how the polyvinylamine is added to the cellulosic material, in that the claims recite that the cellulosic material is "treated" with the polyvinylamine, but do not specify what is meant by treatment, i.e., coating, incorporation into the material which makes up the cellulosic fibers themselves, etc.

Appellant argues that there is not motivation to combine the teaching of Schrell and Evani with JP '593. Further, Appellant states that claims 24 requires the textile material to be a fabric and that the cellulosic material comprise cellulosic fibers. It is noted that Schrell clearly teaches fabrics that comprise cellulosic fibers. With regard to JP '593, the motivation to combine the references is found in JP '593 and is that the inclusion of polyamide fibers enhances the overall strength of the fabric. Appellant argues that since in the Appellant's opinion Schrell teaches away from treating the cellulosic fibers there is no motivation to include polyamide fibers. However, the motivation to include the polyamide fibers is to enhance the strength of the fabrics and is found in JP '593 itself.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

Elizabeth M. Cole

ELIZABETH M. COLE
PRIMARY EXAMINER

Conferees:

Terrel Morris – TM

Rena Dye – RD